

# DX News

Since 1933. We know radio.

Volume 59, No. 8 - November 25, 1991 (ISSN 0737-1659)



## *Inside...*

- 2 .. *AM Switch*
- 4 .. *DDXD-E*
- 10 .. *In the Beginning*

- 11 .. *DDXD-W*
- 13 .. *NRC Ham Network*
- 15 .. *IDXD*
- 18 .. *For Beginners*
- 21 .. *Musings*

### *CPC Tests ...*

**KXOL-1320** - 1730 Neptune Drive - Clinton, OK 73601 will air a special DX test between 1:30 and 2:00 am EST. The test will include tones and code ID's. Reception reports go to Dennis Burton. Arranged by J. D. Stephens for the IRCA.

**WGEE-1360** - P. O. Box 2333 - Green Bay, WI 54305 will test between 2:00 and 3:00 am EST with voice and code ID's and country music. Reception reports may be sent to Mr. Stephen G. Konopka, Chief Engineer. Arranged by J. D. Stephens for the IRCA.

**KUMA-1290** - P. O. Box 340 - Pendleton, OR 97801 will conduct a special DX test December 2 from 3-3:10 am EST. The test will include PSA's, Morse code, voice ID's, plus a special announcement mentioning IRCA. Reception reports go to Mr. Greg Smith, GM. Arranged by J. D. Stephens for the IRCA.

**KPAY-1060** - 2654 Cramer Lane - Chico, CA 95928 will test from 3:30 to 4:30 am EST. The test will include Morse code ID's and march music; power will be 10 kW. Reception reports may be sent to Mr. Dan Butner, Chief Engineer. Arranged by J. D. Stephens for the IRCA.

**From the Publisher ...** An oopsie to avoid ... an NRC'er recently sent an unmarked computer disk to one of our editors, who doesn't even currently have a computer available. Please ask before you send disks; editors, if you'll accept disks, please state from time to time in your columns what format you require. Otherwise, when in doubt send typed, double-spaced or neatly contributions, as complete as possible so that our editors don't have to stop and look up missing information to complete your report.

**Convention tape ...** Ernie Wesolowski's 4-hour, 20 minute 1991 Bridgeport Convention VHS tape is still available for \$20.00; phone your VISA/MC order to (608) 423-4159 (tax will be added to WI

residents' orders), or send your check to NRC Publications (NY residents add tax; see back page for address).

**They joined ...** Mark Damish, Norwood, MA; Larry Putman, Pasedena, MD; Jim Dare, Aurora, CO; Russell Gaj, Los Angeles, CA; Peter J. Sherman, Waban, MA; Ted J. Wedzilowicz KA2HMB, Elizabeth, NJ; Norbert M. Boner, Covington, TN.

**Radio Budapest ...** sent notice of the death of Dennis Herner - the Radio Budapest DX Editor - of a heart attack in late October.

**Address changes ...** Please note that address changes should be mailed (not phoned) to the publisher in Topeka, effective immediately. Address labels will now be produced in Topeka, rather than in Wisconsin, and the elimination of one stop in the transmittal of information from Ron Musco to the publisher should better serve members.

## **DX Time Machine**

### **From the pages of DX News**

**50 years ago ...** from the Nov. 22, 1941 **DXN:** Bob Brown, Goshen, IN, reported that he has identified the off-frequency station on 1107 kHz as XEFO, Mexico City.

**25 years ago ...** from the Nov. 26, 1966 **DXN:** Bob Seifert, Springdale, OH, got a membership for his son, Gregg, and reported spending nothing but sleepless nights from 10-1 on ... Sid Robenbaum, Wheeling, WV, upped his totals to 2,110 ... Jerry Conrad, Walton, KY, reported totals of 1,600/520.

**10 years ago ...** from the Nov. 23, 1981 **DXN:** Rick Carr, Austin, TX, took over the Graveyard Achievements column from Bill Bergadano ... Barbados-790 was heard for the first time 10-27 by Bob Foxworth ... Richard Clark's 1981 Dominican Republic Station List was a feature, as was John Oldfield's article on Canadian Twin stations.

# AM Switch

Jerry Starr  
c/o WHOT Radio  
4046 Simon Road  
Youngstown, OH 44512-1320

Status changes in AM stations, supplied by the FCC and listeners

## CALL LETTER CHANGES

Old call				New call:
650	KORL	HI	Honolulu	KHNR*
740	WDFZ	TN	Tullahoma	WJIG
790	WAJN	TN	Ashland City	WGSV
920	KGAL	OR	Lebanon	KSHO
1240	WOCB	MA	West Yarmouth	WUOK
1250	WXXU	PA	York	WQXA
1340	KSFE	CA	Needles	KTOX
1570	WHYM	WI	Minocqua	WMQA

\*KORL-650 has been silent for several years, this application for a new call might signal its pending return to the air, good news for DXers everywhere as this station is generally known to be the best chance to hear HI in the midwest and east.

## APPLICATIONS / GRANTS FOR NEW STATIONS

None

## APPLICATIONS FROM EXISTING FACILITIES

- 770 KUOM MN Minneapolis: change hours of operation (KUOM shares this frequency with WCAL Northfield, MN. How hours will actually change is not specified)
- 1250 KTIM AZ Wickenburg: reduce power to 350 watts

## GRANTS TO EXISTING FACILITIES

- 640 WJTZ TN Blountville: changes in antenna system (decrease antenna heights)
- 1370 WTKY KY Tompkinsville: reduce power to 2100 watts, changes in antenna system

## OTHERNESS

- 560 WYOR TN Brentwood: silent station is ON THE AIR
- 710 KKMT MT Ennis: according to a letter from the owner of this unbuilt new station they will not ask the FCC to extend their construction permit which ran out the first week on November. This CP has been around since the early 80's and had been granted numerous extensions. This is most unfortunate for DXers who hoped KKMT might make MT easier to hear. Scratch this one from your Logs; it's gone. (Note to FM DXers: they let their FM CP expire earlier this year)
- 810 WBYY MI Rockford: this silent station in suburban Grand Rapids (ex-WJFW) has announced in the press that they will return to the air in December 1991 with a format "similar to TV's Home Shopping Network".
- 850 WAIT IL Crystal Lake: listed on the FCC's Silent List, this station is ON THE AIR
- 930 WREB MA Holyoke: station went SILENT in mid-October

K-TUN  
1180 am

121 W. First St., Suite D • Humble, Texas 77338

- 1030 KDUN OR Reedsport: station is SILENT due to fire
- 1060 WGSB NC Mebane: listed on FCC's Silent List, this station is ON THE AIR
- 1190 WKHL PA Hughesville: station is SILENT
- 1230 KLIC LA Monroe: station is SILENT
- 1340 KMYQ LA Bastrop: station is SILENT
- 1480 WCNT NC Charlotte: station is SILENT
- 1520 WINW OH Canton: while passing through Canton 11-10 your editor was quite surprised to hear this station relaying WHBC-1480 in Canton complete with many "WHBC-1480" IDs. We wonder what possible benefit WHBC might expect from this arrangement. There is certainly no place in the market where WINW has a signal superior to WHBC's 5000 watts except maybe in the parking lot in front of WINW's 4 towers.
- 1570 WNSH MA Beverly: station is SILENT

**WYSL**  
**RADIO 1030**

5620 SOUTH LIMA ROAD  
P.O. Box 236  
AVON, NEW YORK 14414

THANKS: Thomas White, George Greene, Jim Zacher, Phil Boersma, Douglas Smith, Wayne Heinen, David Lewis and M Street Journal.

73 and Good DX, *Jerry & BKF* Jerry Starr & Buffalo K. Foonman

P.O. Box 807  
Veradale, WA 99037

Phone Spokane  
(509) 456-0768

C HOWARD MCDONALD  
BIG M Broadcast Services

Programming  
FCC Applications

Engineering  
Station Acquisition

1 November 1991

Wayne Heinen  
National Radio Club  
4131 Andes Way  
Aurora CO 80013

Dear Wayne,

I regret that your letter of September 30, 1991 was delayed in getting to me, otherwise I would have answered sooner. I'm afraid your request for a special DX broadcast will not be possible under any circumstances. First of all, we have, after considerable delay, elected not to construct KKMT. Financial and land acquisition problems have made the project almost impossible and we need to get on with our lives in other more profitable areas. We will not be asking the FCC to renew our CP when it expires the end of this week.

Our FM permit expired in March and we are not asking for reinstatement of that either for the same reasons.

Also, as a daytime-only AM, a broadcast during the experimental hours would not have been allowed under FCC rules under any conditions.

We have received several reports of KKMT being received in England and Europe during the past two years, which is rather strange inasmuch as we have never placed any sort of signal on the air on 710 kHz. I'm wondering if there might be a pirate out there using our frequency and call sign. I have received several reports of a 1000 Hz tone present on 710 in the early morning hours identified as KKMT. It never happened!

No one is more sorrowful than I that KKMT did not come to pass. Having done a lot of DXing in my time, I can identify with you and your club.

Very sincerely yours,

*C Howard McDonald*  
C Howard McDonald  
EX GM/CE  
KKMT



# Domestic DX Digest - East

*DX Catches in the Eastern U. S. and Canada, with 24-hr. ELT*

**William Hale**

734 Burleson  
San Marcos, TX 78666-4335

## MEDIUM WAVE RAMBLINGS

■ Greetings from Southern California! The next five or six columns will come from here, but continue to mail your DX loggings to my Texas address. I made the trip (1466 miles) in about a day-and-three-quarters. A very nice drive, and I saw some country which I have never had the opportunity to see before. Besides being exposed to a new MW DXing location, I've been amazed at the coverage of 2-Meter Amateur repeaters. I used one located in Silver City, New Mexico which I was told was at 9000 feet! Anyway, it's good to be here, but I'm looking forward returning to the Lone Star State for Christmas.

■ PLEASE, PLEASE, PLEASE... include all pertinent data - city, state, etc. Just sending in the CLs will not cut it anymore. I just don't have the time (or patience) to look it up. Also, send in your loggings divided in the time periods shown here. Not by frequency, not by date, not by time. Also... be sure you report only real DX.

■ Ahah! More new blood. Welcome to Keith Short of Columbus, Ohio. He's been DXin' for about 15 years now, and we're glad to have you among the Living NRC. Report often, Keith.

■ Next week we'll have a list of stations heard by Bob Kramer on low power with high school football. Chances are they'll be doing basketball, too.

## SPECIAL

- 760 WJR MI DETROIT - 10/31 2330 good; hrd with live audio feed of ABC's *Nightline* from WXYZ-TV 7; carried every weeknight (KS-OH)
- 810 WJPW MI ROCKFORD - station went silent in mid-October pending sale to local businessman; will get new CLs (WBYV) and a format reported to be similar to *TV's Home Shopping Network*; hopes to be on the air before Christmas (PLB-MI)
- 950 WSPA SC SPARTANBURG - as reported in AM SWITCH in Issue 3, this station is very much alive and not silent (RT-NC)
- WQBE WV CHARLESTON - 10/12 2115-2125 fair with *Saturday Night Houseparty*; simulcasts WQBE-FM 97.5; many FM 97.5 IDs; poss EZL (JC-OH)
- 1120 WHOG AL HOBSON CITY - 11/4 0811-0815 noted with UC format; not silent as reported in Vol 58, Issue 29 (RT-NC)
- 1160 WTYN NC TRYON - is J WHKP Hendersonville; new address: 116 North Trade Street, Tryon, NC 28782; v/s is David Bivens, OpsM (RT-NC)
- 1230 WCOL OH COLUMBUS - 10/31 simulcasts with WCOL-FM 92.3; IDs as *Cool 92* (KS-OH)
- 1240 WPNF NC TRYON - is J WHKP Hendersonville; new address: 207 East Main Brevard, NC 28712; v/s is Dave Abbey, OpsM (RT-NC)
- 1260 WCEO AL BIRMINGHAM - now relays WBRC-TV channel 6 news; hrd 10/22 1900-1907, along with clear ID of AM 1260 *Business radio*; prompt verie received (KG-PA)
- 1320 WLOH OH LANCASTER - 10/31 now carries WCMH-TV 1800 newscasts weeknights (KS-OH)
- 1440 WHHY AL MONTGOMERY - 10/12 0115-0200 simulcasting WHHY-FM with *Midnight Request Show* on Y-102; phone 860-1102 (JC-OH)
- 1470 WOHO OH TOLEDO - 10/4 (WWW-FM); carries CNN Nx (JC-OH)
- 1540 WTVI SC PICKENS - 10/4 simulcasts and IDs as WTVI-FM 97.1 FM (JC-OH)
- 1550 WAMA FL TAMPA - per verie from WDAE-1250, WAMA has been simulcasting WUSA-100.7 without permission from Gannett Radio Division, owners of WDAE/WUSA; I hope WAMA's owners are aware of this! (EB-GA)
- 1600 WTZQ NC HENDERSONVILLE - as reported in Issue 3, this SILENT station has been sold and should return around Christmas '91; plan to simulcast WISE-1310-Asheville, NC plus local programming (news, etc) (RT-NC)

## UNIDS AND UNID HELP

- 540 UNID ?? - 10/23 1830 ID as AM 540, your *Christian music station*, no CLs and - GOS mx; lost at 1840 to an unID SS stn (KS-OH) [Sounds like WYLO Jackson, Wisconsin's format. And they do shoot all their signal your way - Ed.]
- 640 UNID ?? - 10/31 2220-2250 with EE services of Voice of Free China and Radio Japan (TB-OH) [Sure sounds like WOI Ames to me - Ed.]
- 670 UNID ?? - 10/12 2040 strong SS stn over WMAQ; WWFE? (KS-OH) [Maybe Cuba? - Ed.]
- 740 UNID ?? - 10/20 0304 poor over nothing in particular (CBL off) with marine wx (giving wind speed in knots) - *Do It To Me One More Time* by capt. & Tenille; would KRMG in land-locked Oklahoma have marine wx; KCBS is one of my most-wanted stations, but they're all-news (MB-ON) [How 'bout CHCM? - Ed.]
- 920 UNID ?? - 10/25 with local WAFS nulled, 1906, mentions of *Gulf Coast* and *FM 98*, ROK mx (KVJ-GA)
- 1320 UNID ?? - 10/30 1805-1812 *WEYE FM 104.3* mentions and *Good times, good oldies*, haven't got an updated FM listing so not sure who it is (KVJ-GA)
- 1530 UNID ?? - 11/3 a real mystery here; a strong signal, equal and sometimes over WCKY with *Sports and Entertainment Network*; 0035 with *Live From Bally's* complete with *Your sports superstation*, KVEG, AM-840 North Las Vegas IDs; listened until 0100, hoping for local ID, but only more KVEG, came back at 0500, still there, with KVEG's IDs; anyone know who this is? (KVJ-AL)

**WJBY**  
10/12/91

## MIDNIGHT TO 0800 HOURS ELT

- 560 WYOR TN BRENTWOOD - 10/14 0305 fair with BRN, promos & ID; local WIND off (RK-IL)
- 570 WSYR NY SYRACUSE - 10/19 0622 *WSYR five day forecast* and *Your news and weather station*, WSYR hrd; ad for the *Niagara Mohawk Power Authority* and station phone # 315-421-9797 [different from Log - Ed.]; terrible QRM from 580 CFRA even though in null, then complete fade (LK-ON)
- 590 KEZK IL WOOD RIVER - 11/3 0158 fair - good with Cuban QRM; BFL mx and ID (RK-IL)
- 610 WGIR NH MANCHESTER - 10/19 0629 *Start your Monday morning at 6:00 with the WGIR report. This coming Monday on education*, then nx; clear with some fade (LK-ON)
- 630 WPRO RI PROVIDENCE - 10/19 0634 *WPRO's Mike Tran (?) with that story* which was a story about a fire at the Fram factory, then other nx, wx and ads for Providence; some QRM from 630 CJET, but in the null (LK-ON)
- 640 WNNZ MA WESTFIELD - 10/28 0535 with *The talk station*, AM 640 WNNZ then *This Mutual News, America in the Morning*; ad for *Bob's Mobile* in Westfield, an official *Massachusetts inspection station*, and ad for the *Oak and Spruce Inn* in Lee, *A real New England-style Inn*; very clear, CHOG missing (LK-ON)
- WCRV TN COLLIERSVILLE - 11/3 0130 REL, *Christian Family Radio* (KVJ-AL)
- 680 WPTF NC RALEIGH - 10/23 0646 *WPTF time is now ten 'til seven* then scores, World Series Interviews, promo for *Sports Talk right here on WPTF*, then traffic; tons of QRM, in CFTR null (LK-ON)
- 710 CHYR ON LEAMINGTON - 10/23 0656 with *New country weather for Leamington and Windsor*, then *This is new country CHYR*, QRM from, and in null of unID SS station (Rebeldé?) and probably WOR (LK-ON)
- 760 KMTL AR SHERWOOD - 11/3 0758 promo for advertising on KMTL, AM 76... *Best in Christian programming and Southern gospel*... (KVJ-AL)
- 840 KWPN NE WEST POINT - 10/23 0715 ID by city, frequency, format and local ads incl *John Deere* in West Point, AM 840 *Agriculture Directory* and *sixteen minutes after 6 O'Clock*; lots of other local and C&W mx; clear until CKUL went to day power and wiped it out completely (LK-ON)
- KVJY TX PHARR - 11/3 0700 EZL.NOS mx, *The Valley's Joy* is KVJY... AM Stereo 840... *over the great Rio Grande Valley* (KVJ-AL)
- KVJY TX PHARR - 11/4 0647-0659 overfunder WHAS with EZL; ID at 0655 KVJY AM Stereo 84; lost at 0659 WHGH sign-on; new for TX #27 (RT-NC)



- 860 WQXZ NC TAYLORSVILLE - 10/26 0700 up out of nowhere in CJBC's null with *This is WQXZ, your clear channel station in Taylorsville, Hicksville, and ???*, then total fade; obviously a sign-on; list in Log as 2501 watts (LK-ON)
- KONO TX SAN ANTONIO - 11/3 0253 *Goodtime Oldies Station* with ROK OLD, dual ID KONO-AM San Antonio, KONO-FM Fredericksburg (KVJ-AL)
- 880 KGHT AR SHERIDAN - 11/3 0750 Southern GOS, birthdays, wx; blasting in w/XLNT signal (KVJ-AL)
- WRFD OH COLUMBUS - 10/26 0709 AM 880 WRFD ID followed by wx and ad for central Ohio fabric store *Westerville-Hancock fabrics*; clear, reasonably good (LK-ON)
- WMEQ WI MENOMONIE - 10/23 0724 suspect this with TC as *25 minutes past 6 O'Clock and 49 degrees* followed by *Farm facts and figures from Madison*; Info Line # was 879-9100; looped NE/sw; QRM from others and complete fade at 0729 (LK-ON)
- 900 WFIA KY LOUISVILLE - 10/30 0215 good - fair with XEW with CBN-fed ContChr mx, network ads, *Today's Christian Music* slogans, but NO ID; am assuming this, unless usual WGOK changed format; also hrd on 103.1 FM recently (suspect Athens, TN) (EB-GA)
- 920 WBAA IN WEST LAFAYETTE - 10/25 0659-0700 fair - good with sign-on mentioning that WBAA's studios are located on the ground floor of the *Everett C. Elliot Hall of Music* on Purdue University's campus, local wx - NPR *Morning edition* at 0700, then lost to WOKY and KDHL (MB-ON)
- KDHL MN FARIBAULT - 10/23 0659 fair - good with Minnesota wx, dual ID *This is the KDHL broadcasting network, KDHL Faribault, KWMB 1190 AM, Wabasha - ABC Nx at 0700* (MB-ON)
- 940 WECO TN WARTBURG - 10/23 0715 fair over CBM with sign-on mentioning 5000 watts and ending with *This is WECO... this is pure country*; logged on ET at 1980 (MB-ON)
- 980 WCUB WI TWO RIVERS - 10/15 0705 fair - poor in dogfight with CFPL, with Wisconsin state nx, 0708 talk by annr, ... It's 8 minutes past 6 O'Clock on the Breakfast Show on WCUB - C&W song (MB-ON)
- 1010 CFRB ON TORONTO - 10/13 0230 with Toronto nx and wx (JC-OH)
- 1050 WEVD NY NEW YORK - 10/27 0528 with traffic reports every 5 minutes on *Maynard in the Morning* on 1050, WEVD and *Maynard Allen is Maynard in the Morning*, ads for NY businesses incl one for *Red Blazer* jazz restaurant; very clear in CHUM null (LK-ON)
- 1080 KRLD TX DALLAS - 10/30 0144 good - fair over WTIC with no sign of superpest WXLN with LK, network ads; *News 1080* slogan, *KRLD Dallas-Fort Worth* jx - CBS Nx at 0200 (EB-GA)
- 1150 WJBO LA BATON ROUGE - 11/4 0637 faded up to bury WGOW for several minutes; not hrd in a while (RT-NC)
- 1160 WJJD IL CHICAGO - 10/27 0611 with *My Little Corner of the World* from WJJD, the time is 5:13, then HKY scores and an ad for *Chicagoland White Hen Pantries*; QRM from CJRC-1150 and severe fade in/out (LK-ON)
- WAMB TN DONELSON - 10/12 0046 very good with mx and ID (JC-OH)
- 1200 WNSS NY NORTH SYRACUSE - 10/13 0555-0616 and 10/14 0608-0622 good in WAGE's null with CNN Nx, local ads, and annets of *W-News AM-1260* and *The Syracuse News Leader* (KG-NY)
- 1210 WBIU LA DENHAM SPRINGS - 11/4 0800 very good with legal ID: *WBIU Denham Springs - Baton Rouge*, unkn (RT-NC)
- 1220 WKNR OH CLEVELAND - 10/19 0605 positive ID by *WKNR time is 6:07*, then ABC Nx and 1220 *WKNR Weather* is ... *Sports Radio WKNR*, QRM but reasonably clear until fade (LK-ON) [Laurence, since you questioned the location on this one ... WKNR is clearly in the new Log - Ed.]
- 1260 KTTS MO SPRINGFIELD - 11/3 0728 C&W mx, *Weather Channel* (KVJ-AL)
- WVLC SC LAKE CITY - 10/30 (and most Oct AMs) 0557-0620 fair over QRM with *God Bless America* by *Kate Smith*, full-data sign-on, ABC Nx, *The Tobacco Report* and *farm market Report* (KG-PA)
- WMCH TN CHURCH HILL - 11/1 0604-0612 in the clear with SSB, full-data sign-on mentioning PSA of 500 watts, recorded financial help for Christians, and wx (KG-PA)
- 1270 KESS TX FORT WORTH - 10/30 0235 good over WKBK/Radio Reloj with *La Fabulosa-Kess* jx in SS, - Tejafo mx (EB-GA)

- 1300 KWCK AR SEARCY - 11/3 0730 GOS mx, ad for *White Country Farm & Ranch* (KVJ-AL)
- 1360 KWWJ TX BAYTOWN - 11/3 0015 wx, mention of Galveston, *1360 Weather*, BLK GOS, US Savings Bonds PSA, no ID (KVJ-AL)
- 1420 WHK OH CLEVELAND - 11/1 0105-0130 with TalkNet pgm with guest *Tom Jackson*; fluttering signal (TB-OH) [This is correct city, not Columbus - Ed.]
- WJUB WI PLYMOUTH - 10/13 0659 fair with sign-on (RK-IL)
- 1460 WVEI MA WORCESTER - 10/10 0614-0625 over all with sports, traffic and ads; *Sports radio WVEI* annets, relay of WVEI-590; also hrd 9/21 with *Holy Cross* vs *Boston U* FB and local ads, announcing as *Worcester's Sports Radio, WVEI* (KG-PA)
- 1490 WPCI SC GREENVILLE - 10/30 0258 good - fair over jumble with BRN pgm promo, *Keeping Greenville informed*, 1490 WPCI Greenville legal ID at 0300 - ABC-1 Nx (EB-GA)
- 1550 WOCC IN CORYDON - 10/13 0700 good with sign-on (RK-IL)
- KXOJ OK SALPULPA - 11/3 0520 ContChr mx, *Music for the heart, the soul, the spirit...* (KVJ-AL)
- 1560 WPAD KY PADUCAH - 10/22 0025 weak under WQXR with *AM 1560 WPAD* ID (JC-OH)
- 1570 WTLK NC TAYLORSVILLE - 10/28 0545 over nearby WBUX with full-data sign-on; unusually early, maybe they were still on DST although they do have a night power of 240 watts (KG-PA)
- 1580 WOXR AL OXFORD - 10/23 0709-0712 on top with full-data sign-on, wx and *Community Calendar* promo (KG-PA)
- KCWW AZ TEMPE - 11/3 0510 C&W mx, *Weather for the Valley*, female DJ, *Ford Dealer* ad (KVJ-AL)

### 1600 TO 2400 HOURS ELT

- 530 CIAO ON BRAMPTON - 10/15 1945 fair with unID language; my 1st station this frequency that isn't a TIS (KS-OH)
- 580 WCHS WV CHARLESTON - 10/25 2351 good with *Sports Final Celebrity Talk* show with an NBA coach as guest, ads for *Wall Street Journal*, *Sears*, etc, originating from Star Communications in Boston [This is Sports Final Network - Ed.]; ID at 2300 as *The Sports Leader... 58 WCHS* (MS-ON2)
- 590 WDXN TN CLARKSVILLE - 11/2 1754 promo for MRN auto race preview and ad for *C&S Auto Repair* (KVJ-AL)
- WVLX TN LAWRENCEBURG - 11/2 1800 AMIFM ID: *WLLX, 97.5 and WVLX AM 590 - ABC Nx* (KVJ-AL)
- 630 KXOK MO ST LOUIS - 10/15 2329 with *AM Soul 63* ID (JC-OH)
- 660 KSKY TX BALCH SPRINGS - 11/2 1820 GOS mx, *Your Sky Station*, loud and dominating freq (KVJ-AL)
- 680 WPTF NC RALEIGH - 10/22 1915 fair; was into *WPTF Sportsline*, and apologizing for technical difficulties with a satellite service; was supposed to carry an auto race live (KS-OH)
- 710 WOR NY NEW YORK - 10/31 2300-2330 with *The Barry Gray Show* with guest: The Israeli Counsel General discussing the Madrid talks (TB-OH)
- 740 KTRH TX HOUSTON - 11/2 2117 *Rockets/Nuggets* BKB, promo for *Rockets* tickets (KVJ-AL)
- 790 WTAR VA NORFOLK - 10/29 1900 good, carrying CNN Headline News; during break, local annr said *WTAR Newstime is 7:15* (KS-OH)
- 800 WDSC SC DILLON - 10/21 1908 *For Adults Only... WDSC-AM, Dillon... best music station...* (KVJ-GA)
- 810 KCMO MO KANSAS CITY - 10/28 2307 good with *KCMO* ID - Larry King Show; mbing with XEFW while CKJS is off in an ice storm (SA-GWN)
- 820 CHAM ON HAMILTON - 10/22 2316 XLNT in WBAP null with syndicated *History of Country Music* and 820, *CHAM*, ad for *Northway Mercury* in Brantford (KVJ-GA)
- 830 WCCO MN MINNEAPOLIS - 11/1 2350-0017 with nx, talk show discussing sudden snow emergency, and then the author of an encyclopedia of ghosts and monsters (TB-OH)
- 850 KOA CO DENVER - 11/3 2339-2400 like a local at times with *Denver Broncos* post-game wrap-up; truly armchair copy (but no KSL) (RT-NC)

WRMR OH CLEVELAND - 10/28 1740-1800 *Music of Your Life* with BBD swing mx and news updates (TB-OH)

880 KJOJ TX CONROE - 10/30 1837-1847 XLNT with *Praise Celebration* GOS pgm; non-ID: . . . you're in good gospel country where the good gospel music keeps on coming, KJOJ = K Joy of Jesus; phone 713-367-0107; 1st time hrd since KIKR (RT-NC)

890 KVOZ TX LAREDO - 10/29 1852-1858 very good with CHR-type EE mx; many Y-85 non-IDs; not hrd since last year (RT-NC)

920 WAFS GA ATLANTA - 10/25 2253-2300 with on-air fundraiser, then sign-off (JC-OH)

WAFS GA ATLANTA - 10/31 1759 fair - good in AU conditions with USA Network Nx, female annr giving local wx, *Currently on Peachtree Street It's 77 degrees . . . by the way, I hear it's snowing in Minneapolis*; and WAFS Atlanta ID noted at 1800, then disappeared, presumably due to power/pattern change; WGST logged here in 1987 (MB-ON)

930 WJBY AL RAINBOW CITY - 10/25 2304 very good with HS FB, *Southside* vs *Brewersville* (JC-OH)

WEOL OH ELYRIA - 10/28 1804-1830 *AM Stereo 930*, rx, POP mx; moderate - faint signal (TB-OH)

940 WCPC MS HOUSTON - 10/13 1925 good with bluegrass mx; IDd as *WCPC Houston, Mississipp*, then gave temperature and - a *Eligly Wiggly* ad (KS-OH)

WCPC MS HOUSTON - 10/31 1800 good with ID as *WCPC AM 940 Houston, Mississippi* - *Unleash Network News* (MS-ON1)

WCIT OH LIMA - 10/28 1830-1900 *All-News Radio*; faint; news, wx, and business just like the big-city stations (TB-OH) [Hey, Fred! Do you have stations that sound like their from the big city? - Ed.]

950 WXGI VA RICHMOND - 10/12 1924 fair - good with ID (JC-OH)

960 WERC AL BIRMINGHAM - 10/12 1930 fair with *Auburn* FB and ID (JC-OH)

WFIR VA ROANOKE - 10/29 1835 good with sports and 3-day wx forecast; ID, then a *Dan Rather* commentary from Madrid, Spain (KS-OH)

970 WAVG KY LOUISVILLE - 10/26 2305 good with song *Moody River*, ID as *Wave 970* - song *Impossible Dream* (MS-ON2)

980 WRNE FL GULF BREEZE - 10/29 2210-2220 dominating frequency with UC mx, several *Rhythm 98* non-IDs and many CL IDs; new, for domestic #1000 (RT-NC)

KOKAI LA SHREVEPORT - 11/2 2144 *N.E. LA University* FB game, ad for *Glenwood Regional Hospital*; no ID hrd (KVJ-AL)

WONE OH DAYTON - 10/21 1834 poor - fair over usual mush od CFPL/WWRC/etc with talk on upcoming *Bengals* game, *AM 980 WONE* ID - C&W mx (MB-ON)

WONE OH DAYTON - 10/28 1900-1930 with network & local nx, the C&W mx (TB-OH)

990 KWAM TN MEMPHIS - 10/13 1925 fair with WIVK nulled; KWAM was playing GOS mx over WIVK's *Tennessee-Florida* FB game; mentions of Memphis and KWAM (KS-OH)

1050 KMBA NM LOS RANCHOS DE ALBUQUERQUE - 10/28 2300 good - poor with Business News Radio and KMBA IDs; CKJS off in ice storm; mixing with XEG; new for me (SA-GWN)

WCMS VA NORFOLK - 10/11 2336 very good with . . . *It's 11:36 at FM 100*, *WCMS* ID (JC-OH)

1060 KTOZ MO SPRINGFIELD - 10/14 2000 fair with BBD mx, full ID (RK-IL)

1070 WKDR NY PLATTSBURGH - 10/20 1620 with *This is the flagship station of the ?Home? Network*, *WKDR, Plattsburgh*, then a show called *Money Talk*, ads for *Burlington Tire and Auto* and *Williston Bagel Factory*; clear and reasonably strong (LK-ON)

1080 WXLN KY LOUISVILLE - 10/14 2015 good with REL mx, ID (RK-IL)

WXLN KY LOUISVILLE - 10/20 1848-1909 and 10/1 1850-1903 fair in WTIC's null with BLK GOS, soul and ROK mx, an ad, and IDs as *99.7 FM, 1080 AM, WXLN-FM, AM, Louisville* (KG-PA)

1090 WKFI OH WILMINGTON - 10/26 1945 sign-off with WSWO-102.3 FM mention, *Your downhome station* (KVJ-GA)

1130 KWKH LA SHREVEPORT - 10/13 1955 good with ID as *1130 KWKH* and - a promo for their weather alert tones (3 beeps) (KS-OH)

WISN WI MILWAUKEE - 10/26 1908 good with *The latest WISN Talk radio forecast with meteorologist Dan Pope*, - *Milwaukee Admirals* HKY (MS-ON2)

1140 KCXL MO LIBERTY - 10/14 1945 fair thru WRVA with sign-off (RK-IL)

1150 WZBQ AL TUSCALOOSA - 10/17 2304 good, then gone with *Z102* ID (JC-OH)

WIMA OH LIMA - 10/28 2030-2100 nx, POP mx, Monday Night Football pre-game interviews (TB-OH)

1190 WECC GA ST MARYS - 10/27 1802 *AM 1120*, promo for *Christian Countdown USA* pgm at 2 PM on Saturdays, with local WKGA nulled (KVJ-GA)

WECC GA ST MARYS - 10/28 1800-1808 in the clear after WLBI's sign-off with USA Radio Nx, REL anncts, the *Good News Word for Today*, and phone # and address for phoning and writing (KG-PA)

WBSL MS BAY ST LOUIS - 10/30 2030-2100 hrd with C&W mx, many *WBSL* mentions, ads for *Slidell, Louisiana* and sign-off at 2100; no PSSA in Log for these folks; at times, way over WOWO, L&C; anyone know what the deal is with this one? (EM-NC)

1200 WNSS NY NORTH SYRACUSE - 10/12 2055-2110 fair in WAGE's null with CNN Nx and *W-News* promo: *Brand new from studios to tower, from call letters to transmitter*, has brand new 1000 watt Nautel XR (KG-PA)

1230 WJOY VT BURLINGTON - 10/20 1653 with *Hits of your life, WJOY*, preceded by MOR mx; clear but faint (LK-ON)

1260 WKXR NC ASHEBORO - 10/23 1833-1838 surfaced with C&W mx and a clear ID as *Kickin' Country. 1260 WKXR* (KG-PA)

WMUU SC GREENVILLE - 10/23 1840-1900 on top with Christian mx and songs; ID as *AM 1260, Greenville*, off at 1900 with SSB (KG-PA)

1290 KIVY TX CROCKETT - 11/3 1911-2000 all alone with *Dallas Cowboys Post Game Show* | *WOAI-1200*; many local ads; ID at 1930 *You're tuned to the Voice of Houston county, KIVY AM & FM*, new for TX #26 (RT-NC)

1320 WGLD NC GREENSBORO - 10/4 2100 fade-in with nx and ID (JC-OH)

KXYZ TX HOUSTON - 11/3 2037 good with SS ballads, many *Radio Trece* slogans; unn (RT-NC)

1350 KYXZ AR CABOT - 11/2 2300 ID, CBN News, *Today's Christian Music* (KVJ-AL)

CHAL PQ ST PAMPHILLE - 10/20 1709 with *CHAL, Saint Pamphille* in jx format in FF after nx in FF followed by song in EE *Somebody to Love*, faint with QRM, in *CHER* null (LK-ON)

1360 KFFA AR HELENA - 11/3 1714 C&W mx, promo for *Charlie Daniels Band* concert presented by KFFA (KVJ-GA)

KWWJ TX BAYTOWN - 10/18 2218 good, but fadey with HS FB, local ads (RK-IL)

WHBG VA BRIDGEWATER - 10/21 2148 in and out with *Stereo 1360 WHBG* ID (JC-OH)

1370 WZAO WV GLEN DALE - 10/15 1845-1900 very strong with GOS mx, sports nx, and sign-off mentioning offices at 1401 Wheeling Ave, Glen Dale, but no mention of Moundsville (KG-PA)

1400 WKNW MI SAULT STE MARIE - 10/14 2126 fair with talk and *1400 KWNW* ID (RK-IL)

1410 WLTV AL MOBILE - 11/3 2008 dominating frequency with REL pgm originating from Florida; many ments of Mobile and WLTV; new for domestic #1004 (RT-NC)

1480 WADR NY REMSEN - 10/23 1625 with *All the best country music on WADR*, then C&W song; tons of QRM (LK-ON)

1510 WAUK WI WAUKESHA - 10/26 1909 fair - good with C&W mx, promo for *Info radio* or *AM 1510 WAUK* (MS-ON?)

1540 KGBC TX GALVESTON - 11/2 1949 OLD, 2000 ABC News (KVJ-AL)

KGBC TX GALVESTON - 11/3 2214 - 2310 non-stop OLD with legal ID at :00 *KGBC, Galveston* - Al Nx; very strong!!! unn (RT-NC)

1550 WYNX GA SMYRNA - 10/26 1854 good with talk about Christianity [and unreadable - Ed.], then short Christian-oriented comedy feature; *You're listening to the New halloween with Mike(?) . . . on 1550 AM WYNX Smyrna - Atlanta* (MS-ON2)

WXVA WV CHARLESTON - 11/5 1647 very clear, over WSER for the moment; splash from WNZT-1580 preventing SSS listening (JW-PA)



- WHIT WI MADISON - 10/26 1912 fair with recap of Wisconsin Badgers FB game against Indiana Hoosiers (MS-ON2)
- 1580 KFDF AR VAN BUREN - 11/2 2012 GOS mx, Ft Smith's Christian Station (KVJ-AL)
- WSRF FL FORT LAUDERDALE - 11/3 2127-2206 talk with Charles Lecht Show; ID at :02 Surf's up AM 16 WSRF Fort Lauderdale, new TDH #1006 (RT-NC)
- 1590 KYOK TX HOUSTON - 11/2 2036 loud, with R&B/Soul, ads for Bennigan's and In-Value Hardware (KVJ-AL)
- 1600 WKBJ TN MILAN - 11/2 1930 OLD, church anncts, Milan's hometown radio station... AM 1600 (KVJ-AL)

## REPORTERS

- LK-ON LAURENCE KEARLEY//Orleans, ON//ICF-SW1 + loop
- EB-GA ERIC BUENEMAN/Marietta, GA/DX-200, DX-400, TM-152, SM-2, LW
- RK-IL ROBERT KRAMER, N9MBK//Chicago, IL//R-5000, R-1000, HQ-129X + 2 RW Loops, Kowalski GPY + Kantronics Signal Enforcer peak/notch filter
- KG-PA KERMIT GEARY//Walnutport, PA/recycled envelope
- KVJ-XX KARL JETER/GA = Stone Mountain, GA/HQ-150 = 4' amplified loop or AL = Omaha Community, AL/HQ-150 + west and NW beverages
- MB-ON MIKE BROOKER//Toronto, ON//ICF-7600D, RF-2200
- JW-PA JIM WEBER//Western Lancaster County, PA/Delco caradio
- PLB-MI PHIL BOERSMA//Spring Lake, MI//
- RT-NC ROBERT TIARA/Hendersonville, NC//R-5000 + 24" Ferrite Loop and many LWs
- JC-OH JIM CROSS/Dayton, OH//SP-600 and homemade wedge loop
- MS-ONX MORRIS SORESENSEN/ON1 = Scarborough, ON/HQ-150 + McKay-Dymek DA-9 or ON2 = Gravenhurst, ON (site of Ontario DX Association DXpedition//ICF-2010 + SM-2
- EM-NC ED MITKUS//Zionville, NC//ICF-6900 + LW up a mountain
- TB-OH TONY BERNHOFFER//Toledo, OH//Pioneer SK 550 portable stereo + 2' homemade loop
- KS-OH KEITH SHORT//Columbus, OH//ATS-803A + Select-A-Tenna
- SA-GWN SHAWN AXELROD//Great White North, MB//
- Ed.-CA Ye Editor//Victorville, CA//

## ABBREVIATIONS AND SPECIAL SYMBOLS USED IN DDXD-E

||: parallel with or to - :to or into :00: on the hour AC:Adult contemporary AP:Associated Press BBD:big band  
BRN:Business Radio Net C&W:country & western CHR:contemporary hit radio CID:code ID CL:call letter  
Conf:Chr:contemporary Christian EZZ:easy listening EE:English FF:French GOS:gospel IRN:Interstate Radio Net Jc:jingle  
LSR:local sunrise LSS:local sunset MLB:Major League Baseball mx:music nx:news NPR:National Public Radio  
OC:open carrier pbr:play-by-play PSRA:pre-sunrise authority PSSA:post-sunset authority QRM:man-made interference  
QRN:natural interference QTH:location REL:religious ROK:rock 'n' roll RS:regular schedule S:stereo SID:singing ID  
SR3:sunrise skip SS:Spanish SSB:Star Spangled Banner SSS:sunset skip TC:time check TT:test tones UC:urban  
contemporary UPI:United Press International wx:weather

ALL OLDIES ALL THE TIME  
**KQIWB**

73, Bill

## IN THE BEGINNING

BY JOHN D. BOWKER

THIS IS THE COMPLETE LIST OF U. S. BROADCAST STATIONS ON THE INDICATED FREQUENCY AS PUBLISHED BY THE FEDERAL RADIO COMMISSION IN 1934. "S" MEANS SHARED; "SH" MEANS SPECIFIED HOURS; "T" INDICATES TRANSMITTER LOCATION; "D" MEANS DAYTIME OPERATION ONLY; "U" MEANS UNLIMITED TIME.

Frequency (kc)	Call letters	Main studio and transmitter location	Power	Time designation
1220, regional	WCAD	Canton, N.Y.	500 w	S.H.
	WCAE	Pittsburgh, Pa.	1 kw	U.
	WDAE	Tampa, Fla.	1 kw	U.
	KFKU	Lawrence, Kans.	500 w	S-WREN.
	WREN	T-Tonganoxie.	1 kw	S-KFKU.
	KWSC	Pullman, Wash.	{ 1 kw 2 kw LS.	} S-KTW.
	KTW	Seattle, Wash.	1 kw	S-KWSC.

## Domestic DX Digest - West

DX Catches in the Western U. S. and Canada, with 24-hr. ELT

Hey, easy does it, gang! Who do you think I am, Bill Hale? Largest DDXD-W that I've ever typed. The West RIDes again! Underlined are known log changes and FTH stands for First Time Heard!

## DX TESTS

1370 KCRV MO Caruthersville  
10/28 Not Hrd... local KWRM now NSP (TH-CA)

## Special

540 KHKN CA Carmel Valley  
10/31 1200 Noted w/ these calls. Now "Real Country" feed. C&W. Slogan "The Central Coast's new kickin' country" Excellent signal throughout Central CA. Ex-OLD ex //FM. (Ex-KPUP) (TH-CA1)

1340 KANR ID Nampa  
10/31 1949 Fair w/ CNN Nx. "All News Radio 13-40 KANR". Ex-OLD format. (Ex-KSQR) (TH-CA3/CA4/CA5)

## Midnight to MIDday

630 KIDD CA Monterey  
11/3 0440 Noted w/ OC leaving KOH under. (TH-CA5)

660 KTNN AZ Window Rock  
11/11 0315 Noted this one running IRN feed again this AM. (WH-CO)

720 KUAI HI Eleete, Kauai  
10/21 0351 Poor in KDWN SP. ID and HI Mx to 0400 s/oft. (JW-OR)

770 CHQR AB Calgary  
10/21 0100

"QR-77 News. (DA-CO)

800 KHIS CA Bakersfield  
11/6 0759 S/on ann by male to REL Mx. Fair to surprisingly Good. (OW-CO)

810 KXOI TX Crane  
10/30 0135 Station was in SS w/ EE ID 0135. (DA-CO)

810 KCHG TX Somerset  
11/6 0708 Concert ad, "Your full Gospel station in south Texas" slogan...REL format. QRM from KXOI. TX #115 (OW-CO)

860 KGNR UT Salt Lake  
10/21 1000 "KGNR Newsradio 860, home of CNN". (DA-CO)

980 CKNW BC New Westminster  
11/1 0735 Fair w/WIN net prgms..PST/MST TC's. (TH-CA4)

1010 KD JW TX Amarillo  
11/11 0522 C&W Mx w/ female DJ "More & Better Mx than ever before Y-94 FM KDUY(?)" later ments of KD JW. Guess now //FM. (WH-CO)

1020 KRAD OK Perry  
10/21 0005 "... the best of Northeastern Oklahoma KRAD/KJFK" (DA-CO)

1030 KMAS WA Shelton  
11/2 1027 Fair-Good w/OLD & MOR. ID and Sx. (TH-CA5)

1070 CFAZ BC Victoria  
11/3 0537 Finally knocked down enuff KNX to hear this. local Ads & Basia song. (TH-CA5)

1080 CKSA AB Lloydminster  
10/18 1009 "...from Lloydminster, Canada's only border city. CKSA" (DA-CO)

1110 KRCX CA Roseville  
10/31 0002 Poor, ID for KRCX and //KRDX.

## Wayne Heinen

4131 S. Andes Way  
Aurora, CO 80013-3831  
FidoNet: 104/108 (303) 699-6335 (ppd)

"KRCX Sacramento-Roseville-Stockton and KRDX Rancho Cordova and all of Northern California" and into SS Mx. FTH! (JW-OR)

1140 KPRW OK Oklahoma City  
11/4 0125 On ET possible code at 0114. Fair to good @ 0125 with Code ID's. OK #33 (JT-CO)

1200 KYOO MO Bolivar  
10/13 0826 Noted w/ funeral notices for Bolivar. (DA-CO)

1210 KREW WA Sunnyside  
10/31 1018 Fair o/u KPRZ/KBSG. ID's Farm Nx & Wx. (TH-CA2)

1220 KDDR ND Oakes  
10/14 0900 ID "Dakota News Network, K double D R" (DA-CO)

1230 KYVA Gallup NM  
11/11 0049 OLD format "The one and only Stereo 1230 "Kiva" your station for good times and great oldies". FTH (WH-CO)

1230 KPSS NM Alamogordo  
10/28 0400

Fair w/ legal ID and Mutual Nx. NM #45. (TH-CA)

1230 KQWY WA Everett  
11/3 0444 Weak but steady, noted several Radio 1-2-3, KQWY ID's. (TH-CA5)

1240 KFLY OR Corvallis  
11/1 0830 Fair w/ OR wx, promo for ABC Nx then into Ap Nx. Promo RadDers college FB. (Which OR college is the RadDers?). Dominate in Monterey after KNRV s/oft (TH-CA4)

1270 KDJI AZ Holbrook  
11/1 0825 Good w/ promos, local ads & ID (TH-CA4)

1270 KBAM WA Longview  
11/2 1054 Poor w/ local ads, mixing w/ KAJO. (TH-CA5)

1280 KKKL CO Denver  
11/1 0742 Poor-Fair w/ OLD //FM "Kool Gold 105". (TH-CA4)

1300 KDOV OR Phoenix  
10/31 1023-1030 Good w/ Nx, church promos, NBC Nx update. Need 'em at home! (TH-CA2)

1360 KOHU OR Hermiston  
11/3 1000 Good w/ wx, TC into college FB scores. Gets out well (TH-CA5)

1360 KKKM WA Tacoma  
11/2 0259 Fair w/ s/oft Now has nitely SP. (TH-CA5)

1360 KRKKI WY Rock Springs  
11/1 0856 Mixing w/KOHU w/ad for Rock Springs Jewelry. (TH-CA4)

1410 KRIL TX Odessa  
11/11 0615-0636 Continuous EZL/BBD Mx (No CLA as listed on MM). "KRIL Odessa- MIDland 1410 on your AM dial. Now more than ever your news source for Permian Basin" fair to good w/KOQQ/KFMS. Needed call chg. (WH-CO)

1420 KTJS OK Hobart  
11/4 0131-and on ET noted w/Voice and code ID's. (OW-CO) FTH! (WH-CO) OK #34 (JT-CO) Also noted and unneeded(TH-CA)

1420 KXOW AR Hot Springs  
11/4 0143 Noted w/ local spots, ID's and EZL/NOS type format. FTH (WH-CO) (OW-CO) Also ments of "Stardust Memories" AR #16 (JT-CO)

1430 KYKN OR Keizer  
10/31 1030-1100 Fair w/ "Newsradio 14-30, KYKN Keizer-Salem" CNN and local Nx. Good signal. (TH-CA2)

- 1440 KMAJ KS Topeka  
11/11 0204 NBC N to KMAJ Magic FM SID and faded. Fair w/KEZW-1430 slop. (WH-CO)
- 1450 KONE NV Reno  
11/1 0758 ID ments station is Stereo. Format still C&W. (TH-CA4)
- 1450 KKXO OR Eugene  
11/2 0416 Fair w/ wx, OLD u/KEST. (TH-CA)
- 1460 KCKX OR Slayton  
11/1 0651 Very Good w/SMN C&W. "X marks the spot.. Brand X Country, KCKX Slayton" to SNM nx. Incredible signal for listed 15 w/ (TH-CA4-CA5)
- 1460 KMWX WA Yakima  
11/1 1033 Poor Fair w/ WA Nx. local ads. Need 'em at home. (TH-CA5)
- 1470 KELA WA Centralia  
11/2 1024 Fair w/ local ads. Possible KBSN SID under. (TH-CA5)
- 1490 KTOB CA Petaluma  
11/1 0801 Fair w/ s/on (new time) into Mighty Mike(?) show. (TH-CA4)
- 1500 KANI TX Wharton  
11/4 0039-0100 Gospel Mx, "Great Gospel 1500 AM" to 0100 s/off w/ "God Bless America" good signal w/ no sign of KSP in Aurora type conditions. FTH (WH-CO)
- 1540 KSKQ CA Los Angeles  
11/6 0936 Latin American Nx in SS. Traffic report & local ads. 0959 Wx & EE ID. Fair w/KASA QRM. (OW-CO)
- 1540 KASA AZ Phoenix  
11/7 0936 REL Mx to 0945 then "World Report" ... fade... 0959 ID "This is Praise 15-40 KASA Phoenix" (OW-CO)
- 1550 KAPE MO Cape Girardeau  
11/11 0112 TT to ID and return to Larry King show. Fair to Good. (WH-CO)
- 1550 KZQQ UT Granger  
10/24 0900 Noted w/ EE/SS ID. SS prgm. (DA-CO)
- 1560 KKID OK Salisaw  
11/11 0102 Noted on ET w/ Voice and code ID's. Good signal Unn. (WH-CO) Same details OK #43 (OW-CO)
- 1560 KWCO OK Chickasha  
11/11 0640 Instrumental SSB to full data s/on ann. CHR Mx. Strange sign on time! Very good signal. (WH-CO)
- 1560 KBEW MN Blue Earth  
11/11 0458 S/on ann to brief Wx and fade... noted again 0725-0732 w/Linder Farm Network followed by local Nx. (WH-CO)
- 1560 KIQS CA Willows  
10/31 0945 Fair w/KNZR. C&W mx. Lgl ID and Net Nx on hour. (TH-CA2)
- 1570 CHUB BC Nanaimo  
10/31 1008 Poor/Fair w/wx, local ads and sx scores. 1 hour after LSR. (TH-CA2)
- 1580 KNIM MO Maryville  
10/18 0840 \*sports for northeast Missouri, KNIM" (DA-CO)
- 1590 KWEY OK Weatherford  
11/11 0131 ET w/ Voice & Code ID's Van Halen Mx. Fair to Good. FTH (WH-CO) Ments of "testing purposes" OK # 35 (JT-CO) Same OK #44 (OW-CO)
- 1590 KDJS MN Willmar  
10/18 0800 Call ID and many "downtown Willmar" spots. (DA-CO)
- 1590 KTLT OR Tillamook  
11/2 1042 Fair w/Community calendar, local ads. Mixed w/KLIV. (TH-CA5)
- 1600 KOHI OR St. Helens  
11/2 1034 Fair w/ local nx and PSA's. (TH-CA5)

#### MIDday to MIDnight

- 570 KLIF TX Dallas  
11/5 2259 local ads & prgm notes to Legal ID and local/State Nx. "Talkradio 5-70" slogans, 2307

- "Tuesday Night Radio Show" sounded like network. (OW-CO)
- 660 KSKY TX Balch Springs  
10/28 1845 ID'ing as "Ft Worth-Dallas". (DA-CO)
- 870 KJIEV CA Glendale  
10/30 2302 Fair w/ID, TLK about collectables faded by 2306. (JW-OR)
- 870 KORD WA Pasco  
10/30 2308 Fair w/ "The Hits you remember" into OLD. (JW-OR)
- 890 KVOZ TX Laredo  
11/5 2122 Noted running AC type music, "Y-95" slogans // KOYE-FM 94.9, SS/EE spots. (OW-CO)
- 920 KVEC CA San Luis Obispo  
10/30 2100 Fair w/ ID, Nx and ments of San Luis Obispo. FTH! (JW-OR)
- 980 KINS CA Eureka  
10/29 2039 Fair to Poor w/ ID, local ads and Wx. (JW-OR)
- 1020 KTNQ CA Los Angeles  
10/29 2002 Fair w/ EE ID into SS Nx. (JW-OR)
- 1050 KOFY CA San Mateo  
10/31 1700 Noted w/ new SS format. ex-SMN OLD. (TH-CA1)
- 1210 KONY UT Washington  
11/2 1919 Good w/ C&W, female DJ, "Connie Country" slogans. Dominant from LA to Monterey despite KPRZ northern lobe. (TH-CA1/CA5)
- 1230 KSJK OR Talent  
10/31 1929 Fair w/ ID "Jefferson Public Radio" to Sx, ID "Home of the Raiders, KSJK AM 12-30" into NPR Nx. (TH-CA3)
- 1240 KPCC CA Pasadena  
11/3 2142-2230 Finally caught this unusual station w/ live church remote & other REL prgms. Slogan on the hour "Los Angeles AM 12-40". Legal ID at 2214. Hrd from Glendale to Anaheim. (TH-CA1)
- 1280 KIT WA Yakima  
11/1 1953 Fair w/ oldies. ID (TH-CA5)
- 1340 KBBR OR North Bend  
11/1 2013 ID into SMN C&W. Slogan "Keeping it country on the Oregon coast" (TH-CA5)
- 1340 KIHHR OR Hood River  
11/1 2050 Poor/Fair. Female DJ reading Community Calendar. (TH-CA5)
- 1370 KKMJ TX Rollingwood  
11/6 1847 Fair to Good signal..local spots, contest promo into AC MX using KKMJ call. (OW-CO)
- 1400 KWNA NV Winnemucca  
11/2 2000 Fair w/ local ad, SID, to Net Nx. Lots of QRM. (TH-CA5)
- 1400 KODI WY Cody  
10/19 1938 Cody area sports o/u KCOW w/ report from "Sister station KPOW in Powell" (DA-CO)
- 1420 KUJ WA Walla Walla  
11/1 2040 Fair on top w/ ID and promos. (TH-CA)
- 1450 KAVA CA Burney  
10/31 2359 Poor/Fair DJ urging listeners to patronize KAVA advertisers (before they go silent! -ed) (TH-CA4)
- 1450 KVML CA Sonora  
11/2 1142-1230 Weak in KEST null w/C&W, local ads, Ai Nx and "Buyer and Sellers" Tradio prgm. Have never seen this reported before. (TH-CA5)
- 1450 KFLS OR Klamath Falls  
10/31 2003 Ap nx. ID.. local Nx then faded. (TH-CA3)
- 1490 KCID ID Caldwell  
10/31 1958-2205 Fair w/ BYU FB //KSL. (TH-CA3/CA4)
- UNID's  
880 UNID  
10/30 0313 Huge OC o/KFMR, loop N/S (TH-CA)
- 1230 UNID  
11/3 0327 BRN Net, fades before hourly ID (Shame on Mr. Murphy!-ed) Likely KBSN-WA or KMGR-UT (TH-CA5)

- 1240 UNID  
11/3 0518 Unistar C&W //KQIK-OR. Poss KWIK-ID or KXLE-WA listed. (TH-CA5)
- 1240 UNID  
11/3 0426 Jim Bohannon looping ENE u/ KPOD. (TH-CA5)
- 1610 UNID (TIS)  
11/3 1935 Caught bits of a test "Testing 1-2-3-4-5, 5-4-3-2-1" Weak mixing w/ KNEC996 (Suagus) faded under Caribbean Beacon. (TH-CA1)
- TIS  
530 WGM499 CA Castic  
10/31 0740 Already a call change from WNWD650! Hrd w/ female ann. Msg changes on Mon & Sat AM's. Gets out well, noted as far north as Buttonwillow, CA. (TH-CA1)
- 530 TIS CA Pismo Beach  
10/31 1127 New station w/ info on beaches, off road vehicle park etc. Not noted last April. No call ID. (TH-CA1)
- 530 WNSB415 CA San Ysidro  
10/31 0900 Hrd 10 miles W of Goleta, CA. Usual loop. About a 200 mi catch. (TH-CA1)
- 1610 WXT57 TX Austin  
11/11 0545 West TX Wx followed by Austin Metropolitan Wx, finally enough for a report. Fair to poor w/ KRXY-1600 slop. (WH-CO)
- 1610 TIS CA Santa Monica Mountains Nat'l Rec Area  
10/31 0750. Tourist info for Point Mugu and west end of Rec Area. Malibu not noted. No other Mulholland Hwy stations noted. (TH-CA1)

- 1610 TIS CA Malibu  
11/3 1941 Weak from 100 miles away. mixed w/KNEC996/UNID TIS tester/Caribbean Beacon. (TH-CA1)

- Contributors!  
(DA-CO) Douglass Allen Woodland Park, CO | Icom 735, 52' Hytower vertical, 160m dipole, 550' NE-SW wire  
(JT-CO) Jeff Tynan Parker, CO | Sony-2002 w/2401si Loop  
(JW-OR) Jack Woods Waldport, OR | ICF-2010, SP-600, Martens Loop  
(OW-CO) John Wilkins Wheatgerm, CO | R-1000, 4.238' Anguilla Loop  
(TH-CA) Tim Hall Chula Vista, CA | ICF-2010, Radio West Loop  
(TH-CA1) Tim Hall On the road South & Central CA | Car RX  
(TH-CA2) Tim Hall US-101 rest area near Gaviota, CA | Car RX  
(TH-CA3) Tim Hall in Santa Cruz | Car RX  
(TH-CA4) Tim Hall in Watsonville CA | Car RX  
(TH-CA5) Tim Hall in Monterey, CA | Car RX  
(WH-CO) Wayne Heinen Aurora, CO | R-390A, 4' NRC loop

73  
Wayne

## NRC Ham Network ... via Jerry Starr

Now that the DX season is upon us again please note that the unofficial NRC Net on the 80 meter ham band is off and running once again. Please keep in mind that this is not an official "net" in the strictest meaning but a gathering of hams that includes many NRC members. And although the subjects may range from radio to music to weather to who-knows-what, many NRC related topics are often discussed. Probably the most important feature to the general membership is the fact that Jerry, N8IRL, passes along information on any last-minute DX Tests that came in too late for publication in the DX News. This info is phoned in by Wayne Heinen, usually on Saturday, and is announced to the members of the Net somewhere between 9:00 and 10:00 PM EST. Already we have passed info on FIVE Tests that didn't arrive in time to be published in DX News! Of course any NRC member holding an Advanced or Extra class license is invited to check in (the Net is held in the Advanced portion of the band to avoid the crowded conditions which prevail in the General portion) and, of course ALL NRC members who wish to monitor the net are welcome to do so. You just might catch a DX Test you would have otherwise missed. We meet on 3.840 MHz on SSB (lower sideband). As mentioned, don't look for exclusive radio or NRC chat, the subject may wander to almost any subject. And there are times when the frequency is already occupied by other hams so the net will move slightly up or down the band. Calls to look for to identify the group would include: N8IRL, KK4FB, K8GVU, WA4LQI, N4PGE, N4NU, KB9IV and others.



# International DX Digest

Foreign DX Catches. Times are UTC; for ELT, subtract 5 hrs.

Welcome to new reporters Laurence Kearley, Bob McCoy, and Doug Allen. Also nice to have Brian and Mike back with us. 32 countries reported this week!

A red, blue and green aurora was seen in the sky over Rochester 11/8, described in the media as one of the most vivid displays in years. The A index was around 100, and K index as high as 8. Mostly a lot of noise on the band, with only a few LA's poking through.

**Deadlines:** I mail the column to Paul on Mondays, so the deadline for receiving your reports is Saturday, although my weekend workload (I'm a Presbyterian minister) sometimes means that I have to finish the typing on Friday. If you get the material to me by Friday it will almost always be included in the current column. **JIM**

## TRANS-ATLANTIC

- 549 **ALGERIA** Oran/Les Trembles 2339 10/10. Good w/AA chant. [MC-MA] (Mark, some DXers who have studied Islamic cultures suggest that "Koranic recitations" would be a more accurate, less offensive description of this kind of programming, particularly if writing for a QSL - Jim)
- 612 **MOROCCO** Sebba-Aioun 2342 10/10. AA program, poor to fair in slop. [MC-MA]
- 666 **PORTUGAL** Lisboa 2344 10/10. Poor w/bits of PP audio. [MC-MA]
- 702 **MOROCCO** Sebba-Aioun 2246 10/10. Bits of AA chant. [MC-MA]
- 711 **MOROCCO** Laayoune (tent) 2322 10/10. Strong w/AA mx, potent carrier but shallow audio. [MC]
- 765 **SENEGAL** Dakar 2205 10/10. Good w/woman in FF. Up to excellent (local-like) strength by 2300; African shouting vocal. [MC-MA]
- 837 **AZORES** Barossa 2327 10/10. Good w/PP talk. [MC-MA]
- 882 **CANARY ISLANDS** (tent) 2309 10/10. Het here during TA opening restricted to low latitude paths. [MC-MA]
- 891 **ALGERIA** Algiers 0345 10/9. AA chanting to good peaks. [MC-MA]
- 1044 **MOROCCO** Sebba-Aioun 2356 10/10. To good peaks w/AA vocal. [MC-MA]

**Jim Renfrew**

61 Wilcox Street  
Rochester, NY 14607-3832

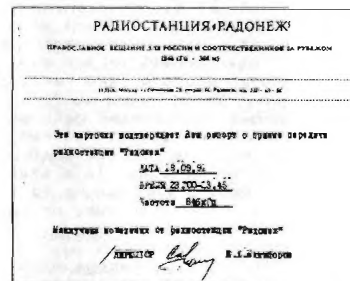
- 1062 **PORTUGAL** 2356 10/10. Bits of PP talk. [MC-MA]
- 1088 **ANGOLA** Luanda 2225 10/10. African mx, poor. Note that this is on the "old plan" 1088 instead of 1089. [MC-MA] (Nice! - Jim)
- 1134 **CROATIAN REPUBLIC** Zadar 2200 10/24 & 10/25. 2157 mx (anthem?), 2200 3 long pips and spaces (last pip longest, and on the hour). Male anncr, non-EE ID, 2205 M/F anncrs w/EE nx about Yugoslavia-Croatia war, very descriptive, mentioned places for the Red Cross on both dates. 2212 mx. 2215 Some kind of IS, then male w/unid non-EE lang. 2200 10/26 M/F w/EE talk, again details about the war, reception lost to fade by 2202. [BV-NWT] (Has been reported off due to tx damage from war, we'll see what Euro-DXers have to report in weeks to come - Jim)

## PAN-AMERICAN

"11/2 & 11/3 classic aurora - fantastic LA signals both evenings, mainly HJ on 11/2 and YV on 11/3" [AM-VA]

- 530 **UNID** 2337 10/10. UNID (non-EE) lang talk, strongly hetted by Algeria 531. [MC-MA]
- 535 **GRENADA** St. George's 2338 10/10. Local announcements, Carib EE talk by M. [MC-MA] 2354+ 11/3, very good signal w/quiet instrumental mx "Bridge Over Troubled Waters". Slight slop from 540 but 5-7 signal. Good on all antennas. [AM-VA]
- 550 **UNID** 0950 10/27. Tentatively IDed as CMAN R. Rebelde from Pinar del Rio, Cuba. The mx being played in SS and SS talk was identical to the UNID on 600 and 710. All three were clearly simulcasting this morning. At 1000 there were what seemed to be announcements, and then nx referring to Spain and Mexico, then back to mx. All three faded around 1100; looped SE/NW. The station on 550 was much fainter than the other two. (Your three UNIDs are almost certainly Rebelde, and are quite common during auroral conditions, keep listening for the ID! - Jim)
- 555 **ST. KITTS** NiZ, Basseterre 2340 10/10. Talk by man in Carib EE, in WGAN slop. [MC-MA]

- 580 **PUERTO RICO** WKAQ, San Juan 2341 10/10. Loud w/PR nx by man in SS. [MC-MA]
- 600 **SURINAM** Paramaribo 2341 10/10. Indian (Hindi) female vocal o/Venezuelan. [MC-MA]
- 600 **UNID** 1120 10/26. Tentatively IDed as CMKV Radio Rebelde from Urbano Noris, Cuba. Talk in SS of "Cartas Medellina" then "Radio Informacion". There was much talk about the president of Argentina visiting and other talk of Argentina. There was SS mx in between the various items. There was also an identifying 3 note tone before the nx which sounded like the familiar NBC tone and was repeated three times. The loop was SSE/NNW. [LK-DNJ]
- 620 **ANTIGUA** St. John's 2343 10/10. Carib EE talk, local announcements o/u SS (Ven. or DR?) and stiff het from Canary Islands. [MC-MA]
- 630 **PUERTO RICO** WQBS, San Juan 2343 10/10. SS talkshow, killing WPRO. [MC-MA]
- 640 **GUADELOUPE** Point-a-Pitre 2240 10/10. Good w/FF talk by M/F, o/u SS station. [MC-MA] 2230+ 11/3 w/ excellent signal, M/F announcers in FF, instrumental mx, over SS station. Best on loop. [AM-VA]
- 650 **COLOMBIA** HJXX, Bogota 0215+ 11/3. Upbeat LA mx, excellent signal, shouted "Antena Dos" ID at 0219. Best on loop w/powerline noise nulled. [AM-VA]
- 650 **UNID** 2305-2325 11/3. Very rapid LA mx, occasional announcements by a man thru the mx w/a ton of echo. Super signal, kept tuning back and forth 650/660. Suspect both were YVs but no ID heard on either. [AM-VA]
- 660 **UNID** 2305-2325+ 11/3. Back to back lite rock, mostly in EE, such as "Monday, Monday" and "I Write These Songs", couple of brief announcements in SS, no ID that I could catch. On loop. [AM]



- 670 **VENEZUELA** YVLL, R. Rumbos, Caracas 2320 10/10. Loud w/"Rumbos deportivo" sx program, complete w/march mx, like similar US programs. [MC-MA] 2236 11/3 w/ID and TC followed by mx. Good signal, on top, best on loop. [AM-VA]
- 705 **ST. VINCENT** Kingstown 2245 10/10. Accented EE talk by man, fair. 2318 10/10 w/loud FF program. [MC-MA]
- 710 **VENEZUELA** YVKY, Caracas 2321 10/10. Venezuela mentions o/u other SS. [MC-MA]
- 710 **UNID** 0900 10/27. Possibly CMHQ or CMJN from Sta. Clara or Holguin. Faded in/out in WOR null. [LK-DNJ] (Yes, two Rebelde outlets here. By the way only a hand-full of Cuban stations use call letters over the air. - Jim)
- 720 **VENEZUELA** YVOL, Porlamar 2318 10/10. Ads mentioning Porlamar, mixed w/other SS & CHTN. [MC-MA]
- 740 **PUERTO RICO** WJAC, San Juan 2324 10/10. WJAC (SS) jingle, SS talk, and mx o/presumed YVNC. [MC-MA]
- 750 **VENEZUELA** YVKS, Caracas 2332 10/10. Excellent w/SS talk, new version of 70's disco hit "Rock the Boat". [MC-MA]
- 760 **GUYANA/VENEZUELA** Georgetown 2335 10/10. W/shrill East Indian (Hindi) female vocal o/YVGO Pto la Cruz w/SS program & mentions of "Venezuela del Oriente". [MC]
- 760 **VENEZUELA** YVOD, Pto. La Cruz 2256 11/3. "La Doble Q de Pto. La Cruz" ID, gave power as 10 kW (not 5 as listed in WRTH). Several spots, including one for "cervaza", romantic mx. Best on loop. Looking for Guyana, hi! [AM-VA] (Say Hi! to MC-MA!)
- 770 **BRAZIL** (tent) 2302 10/10. PP talk behind WABC. [MC-MA]
- 770 **COLOMBIA** HJKH, RCN, Bogota 2350 11/2. Also IDing as R. Suceso, big signal, way on top w/nx. Excellent and in the clear on all antennas. [AM-VA]
- 780 **BRITISH VIRGIN ISLANDS** ZBVI, Roadtown, Tortola 2208 10/10. Loud w/nx of the islands by a woman in Carib EE. [MC-MA]
- 780 **VENEZUELA** (tent) 2346 10/10. Ecos del Torbes and R. Coro suspected to be the two SS stations battling it out here. [MC-MA]
- 780 **VENEZUELA** YVMN, R. Coro 0130 11/4. "En astado de Falcon ...





R. Coro", way on top, about half a dozen spoken and singing IDs, followed by EZL LA vocals. On top on all antennas. [AM-VA]

- 800 NETH. ANTILLES PJB, Bonaire 2325 10/10. Excellent w/SS religious talk, o/u UNID SS mx. [MC-MA]
- 810 COLOMBIA HJCY, Caracas, Bogotá 0338 10/22. Caracol u/KGO. [DA-CO] 2358 11/2, w/even bigger signal than 770, beer ad, followed by ID and station promo. Any antenna. [AM-VA]
- 820 VENEZUELA YVSH, Upata (tent) 2306 10/10. "Continental" and Ven. mentions, SS talk, netted by Morocco 819. 2347 10/10 "Mundial" ID (?) o/growl. [MC-MA]
- 825 ST. KITTS Basseterre 2218 10/10. Absolutely blasting in w/EE preaching. [MC-MA]
- 830 BELIZE R. Belize 0042+ 11/4. Excellent again w/nx program, taped statements from Prime Minister about Guatemala's agreement to recognize Belize. Good on all antennas. [AM-VA]
- 860 UNID 2360 10/10. Screamed "Ritmo!" slogan; boxy audio (telephone quality). [MC-MA] UNID 0506 11/2, good o/second SS, many "La Ponderosa" IDs. [DA-CO]
- 870 COLOMBIA HJSB (?) 0005-0010 11/3. Believe this is the one w/fair-good signal, upbeat LA mx, what sounded like "Radio Mar Caribe" ID at 0109 by woman, WWL phased. [AM-VA]
- 880 VENEZUELA YVKU, Caracas 2308 10/10. Onda Musical & Tricolor mentions, Caracas given as QTH. Totally killing WCBS! [MC-MA]
- 885 MONTERRAT (tent) 2259 10/10. Bits of talk, poor. [MC-MA]
- 890 COLOMBIA HJCE, Bogotá 2352 10/10. Apparent "Todelar" ID, SS mx. [MC-MA]
- 895 St. Kitts Nevis, VON 2258 10/10. Good w/EE talk by W. [MC-MA]
- 900 BARBADOS Bridgetown 2257 10/10. Soft soul vocal, then mentions of local phone hot-line and Barbados PSAs. [MC-MA]
- 900 MEXICO XEWB, Veracruz (tent) no time shown 10/20. Echo effect on SE beverage only, w/regular XEW good on all antennas. [DA-CO]

- 900 MEXICO XEW, Mexico City 1100 10/27. SS mx, then ID as "LV de la América" and "La Cinquo, XEW" then return to SS mx, later a discussion in SS and "La seule de Mexico, information, amoura de Mexico" and more mx. Clear and strong w/DRM later and fade. [LK]
- 910 VENEZUELA YVRO, Maiquetia 2312 10/10. Disco oldie "Heaven Must Be Missing an Angel", then talk by woman mentioning Mundial net. [MC-MA]
- 960 CUBA R. Reloj 0530 10/6. Reloj program mixed w/domestic. [MC]
- 970 UNID (maybe Virgin Islands) 0525 10/6. Calypso mx u/WYNZ. [MC-MA]
- 980 UNID 0200+ 11/3. May be domestic, strong signal, audible u/WWRC w/o phasing unit, super w/WWRC phased; upbeat mx, IDs as R. Tropical. Nothing listed. All SS, M announcer. Any ideas? [AM-VA] (Former R. Impacto? - Jim)
- 990 VENEZUELA YVTA, Barquisimeto 0521 10/6. Lively SS LA mx, "es Tricolor" ID, good. [MC-MA] UNID 0025+ 10/31. Two SSS here, one mentioning "en Venezuela" and "Mundial" leading me to suspect YVTA carrying a sporting event of some type. The 2nd station was u/w/up-beat mx. Generally on top of frequency on all antennas. [AM-VA]
- 990 UNID 0025+ 11/4. Station in FF, M/F announcers, excellent signal, on top of freq. Mostly talk; was first noted a week or ten days ago w/what sounded like religious program. Heard twice so far. WRTS shows low-powered Haitian here. Can't believe it's them. Loops a bit east of due south. [AM-VA] (Hmmm, possibly a station in Dom. Rep. broadcasting to Haiti in FF during coup, or long-shot Gabon? - Jim)
- 1000 COLOMBIA HJAO, Cartagena 0103 11/4. Up out of the jumble w/nice "RCN" ID, M/F announcers w/what sounded like nx; best on loop. [AM-VA]
- 1020 VENEZUELA YVRS, La Asunción 2355 10/10. Margarita ID good despite heavy WBZ slop. [MC-MA]
- 1020 CUBA CMAP, R. Guama, Bahia Honda 0017-0020 11/3. Way on top with M/F announcers, some mx, list of names read at one point, ID and promo at 0019. Good on all antennas. [AM-VA]

## DEUTSCHLANDFUNK

GEWINNUNGSANSTALT DES ÖFFENTLICHEN RECHTS

- 1030 CUBA CMAN, R. Guama, La Palma 0017-0020 11/3. Even better than 1020. I kept tuning back and forth. No sign of WBZ. All antennas. [AM-VA]
- 1070 UNID 0040 11/3. On top, but just barely w/LA mx, Em. Atlantico, Barranquilla used to be the most heard here but not sure now. Was no FF, so not badly needed French Guiana, hi. Best on loop. [AM]
- 1090 MARTINIQUE 0513 10/6. Carib. Creole style FF, good, 2358 10/10 w/Carib. FF good o/SS station. [MC-MA]
- 1100 COLOMBIA HJAT, Barranquilla 0515 10/6, atop w/local ads. [MC-MA] 0542 10/24. Fair/poor in KFAB splash w/slow fades, tentative. Caracol net IDs, nx from correspondents around Colombia, with several from Barranquilla. [BM-NE] 0400 10/30, way on top "en Colombia Caracol" [DA-CO]
- 1100 ANTIGUA ZDK, St. John's 2226 10/10. Loud w/EE nx by Carib accent man, atop SS station. [MC]
- 1160 BERMUDA VSB3, Hamilton 0511 10/6. Good w/BBC nx. 2230 10/10 good again w/BBC relay, WSKW phased, some WKPE 1170 slop. [MC-MA]
- 1165 ANTIGUA St. John's 0517 10/6. Good w/EE preaching. [MC-MA]
- 1170 COLOMBIA HJNW, Cartagena 0553 10/24. Tentative, w/more correspondent reports, Caracol ID 0600. "La Información de la Una" nx program. [BM-NE]
- 1180 CUBA R. Reloj, Nueva Gerona? 0808 9/30. Heard w/time ticks. [DA-CO]
- 1210 VENEZUELA YVZT, Barcelona 2235 10/10. Ads for businesses in Barcelona, Ven. [MC-MA]
- 1220 COLOMBIA UNID 0603 10/24. Nx item from correspondent concerning President of Ven. I was too tired from lateness and GRN to check for net parallels w/earlier catches. I occasionally note a Colombian here whenever I hear SS professional-sounding nx. [BM-NE] 0115-0130+ 11/3 w/upbeat LA mx, fair signal, in and out of the jumble. While waiting for an ID, 2nd station up briefly at 0117 w/"RCN" ID. Two listed, Monteria (most likely) and San Gil. Suspect UNID was R. Reloj, Barranquilla, but not sure. On slopers w/local WFAX phased. [AM]
- 1410 MEXICO XEAS, Nuevo Laredo TAM 0400 11/3. Mx then ID straight into XE anthem, then off, new for #1400 ever. [MH-NE]
- 1420 MEXICO XFEW, Matamoros TAM 2357 11/1. ID jingle as "LV del Bajo Bravo". Local KESY off at the time. [MH-NE]
- 1420 MEXICO XEF, Cd. Juárez 0129 11/2. ID, then ads mentioning Cd. Juárez. [MH-NE]
- 1430 CUBA R. Surcos, Moron 0500 10/20. S/off heard. [DA-CO]
- 1440 MEXICO XEEST, Mexico City 0110 10/7. Singing "Happy Birthday R. Alegria" in EE to SS. [DA-CO]
- 1520 MEXICO XEO (?) Chihuahua no time or date shown. Heard w/"XEO, en Chihuahua". [DA-CO] (My list shows two CHIH stations, one possibly silent in Cd. Camargo, and the other XEJBC in Cd. Juárez, the "J" is pronounced "hoe-tah" - Jim)
- 1540 BAHAMAS (non) Where is ZNS? Despite superb auroral cx for the past 3 months, not so much as a peep. Are they on? [AM-VA]
- 1560 MEXICO UNID 1424 9/27. Heard w/may mentions of Chihuahua. [DA-CO] (Once again, two CHIH stations, one possibly silent, the other R. Alegria in Cd. Juárez - Jim)
- 1580 MEXICO XEDM, Hermosillo 0050 9/29. "La Grande de Sonora" pest. [DA-CO]
- 1600 MEXICO XEAE, Cd. Acuña 0110 10/20. Heard w/"R. Variedades" ID. [DA-CO]
- 1610 ANGUILLA Caribbean Beacon 2214 10/10. Like a local w/black gospel mx. [MC-MA] 2125 10/21 very good, strongest this season, but no audio on 1505 and very little on 825. [DA-CO] 0130 10/23 w/a sermon from Brother Hardy giving an address in Baltimore, then a positive ID "This is the Caribbean Beacon" at 0100 followed by CNN News. Reception was clear and loud at times, with severe fade at times. [LK]
- 1685 COLOMBIA MER Beacon 0302 10/22 Good copy on morse signal, w/SE beverage. [DA-CO]

## STATION NEWS

**MALTA:** VO Mediterranean 1957 600 kW broadcasts temporarily suspended while work is being done on a nearby power station. [Rainer Geisman, DW Malta mgr. in VoMed newsletter on DXPL 9/21 via Mike Fern in NASWA Journal 11/91]

**NORWAY:** NRK 1314 has been heard w/AM stereo tests in July, 1991. [MW News in UKVK #13]



## CONTRIBUTORS

[LK-ON] Laurence Kearley, Orleans ON  
Sony ICF-SW1 and loop.

[AM-VA] Alan Merriman, Annandale VA;  
Drake R-8, slopers, phasing  
unit, 2' air core loop

[MC-MA] Mark Connelly, Rockport MA  
after work DXpedition; ICF-  
2010, 2x30m wires phased  
w/MWDX-5 phasing unit.

[BV-NWT] Brian Vernon, Nanisivik NWT;  
Drake R-7A, 2 x 1500' LWS

[MH-NE] Mike Hawk, Omaha NE; R-1000  
and 2' loop

[BM-NE] Bob McCoy, Lincoln NE; Sony  
SRF-M30 Walkman ("surprisingly  
good nulls for the size")

[DA-CO] Doug Allen, Woodland Pk CO;  
ICOM 735, 52' Hytower  
vertical, 160 meter dipole, 2  
short unterminated 550'  
beverages NE/SW and SE/NW

## For Beginners

Jack Woods - P. O. Box 1003  
Waldport, OR 97394-0514

Mike Hawk - 10212 P St.  
Omaha, NE 68127-2130

### Information and advice of interest to inexperienced DX'ers

When reading through the lists of contributors to the DDXD columns, it becomes apparent that most DX'ers use some form of loop antenna. A wide selection of loops are used. There are box loops with and without amplifiers, spiral loops, and ferrite-core loops with and without amplifiers. There are loops known by the designer's name, type name or number, or by the name of the company that markets them; Palomar, Worcester, NRC, Shotgun, Hot Rod, Sanserino, Space Magnet, Martens, Radio West, and probably others. The purpose of this "For Beginners" article is to present some basic ideas about loop antennas and to refer the reader to other sources of information.

**Some background:** The ability of loop antennas to null incoming signals has been known since the early days of radio. Loop antennas have been used for marine navigation for at least 75 years. When aviation developed to the point that some means of direction-finding became necessary, loop antennas were used in that field also. Loop antennas are still commonly used for marine and aviation navigation, in some applications. About the mid-1930s the manufacturers of mass-produced home entertainment AM radios began to include loop antennas in their sets. The purpose was to improve user convenience by making the use of external antennas unnecessary. Those loop antennas were originally small spiral loops glued to a fiber board which served as the back cover of the radio cabinet. Those loops usually also provided the inductance for the input tuned circuit. Later, in the mid-1940s, small ferrite-core loop antennas came into use, and continue to be used in most AM radios built for use in the home. In the past 25 years most of the serious development work on loop antennas has been done by hobbyists. Probably most of those in the United States have been or are NRC members.

The most useful characteristic of the loop antenna is its ability to null vertically polarized signals (nearly all medium-wave broadcast stations transmit a vertically polarized signal). When a loop antenna is positioned vertically, like a picture frame on the wall, signals arriving from a direction broadside to the loop are cancelled out in the loop and there is no signal output from the antenna. There are two nulls; 180 degrees apart. Signals from other directions than directly broadside do produce an output from the loop, with maximum output from those arriving end-on to the loop frame. For DX use, the loop antenna is rotated and tuned to null an unwanted signal, making possible the reception of weaker signals on the same frequency.

Loops are inefficient antennas for radio reception. Their maximum output is low. This is a characteristic of loop antennas and is the main reason most loops are equipped with amplifiers. Not all loops require amplifiers. When not needed, an amplifier may do more harm than good (see Lankford's article "What's Wrong with Present-Day Loop Antennas" in DX News dated April 1 of this year). When the signal input to a receiver is high enough to reasonably exceed the internal noise of that receiver, further amplification of that input signal will probably result in poorer rather than better receiver performance.

There are several advantages of loop antennas for the medium-wave DX'er:

1. the ability to null unwanted signals.

2. loop antennas pick up less radio noise from local sources than do other antenna types.
3. a well-designed and well constructed loop is a sharply tuned circuit which can reduce adjacent-channel noise and splatter before it can reach the receiver input.
4. ferrite core loops and the smaller box loops are compact table-top units which can provide good DX performance with no need of the outdoor space, antenna supports, and hardware associated with longwire antennas. This assumes that your receiver is not in a steel-frame highrise or other structure with built-in poor reception. The loop can't pick up signals which aren't there.

**Question:** Does the shape of the loop frame (square, round, triangular, etc.) affect the strength of the output signal?

No. The output is proportional to the area enclosed by the loop; not to its shape.

**Question:** It seems that a remotely controlled loop which could be installed away from indoor noise sources would be a good idea. Why isn't that done?

It can be done, but is generally considered to be more trouble than it's worth. That would definitely be a complex project. See "The RTL-1 Remotely Tuned Loop" by Mark Connelly, in DX News dated 10/21/91.

**Question:** My receiver does not have a terminal for connecting an external antenna. How can I connect a loop?

Nearly all AM receivers that do not have a provision for connecting an external antenna, have an internal ferrite core loop. You may obtain enough coupling between the two loops by simply placing your receiver close to the tunable loop antenna. Another possibility is to connect a few feet of insulated wire to the loop lead-in and to arrange a few turns of the wire around your receiver for inductive coupling to the internal antenna. The Sony AN-1 Active Antenna was supplied with a Type ANC-2 ferrite bar antenna coupler which is just what is needed for coupling a receiver to a loop antenna. It may be possible to order that item from a Sony dealer. If any reader knows about this, or about the availability of a similar item, please let us know. **CAUTION** - Do not modify your receiver to provide external antenna terminals unless you understand just what you are doing.

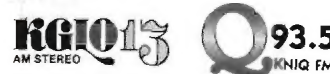
**Question:** I plan to build a loop. Where can I get a 365 pfd tuning capacitor?

This is the tough question. This item, which was easy to find and inexpensive a few years ago is now scarce. One possibility is the tuning capacitor from an old AM radio. We ask for reader help with this question.

**Question:** My loop gives deep nulls on some but not all local stations. What is my problem?

A vertical loop antenna can null the vertically polarized signal from a medium-wave broadcast station. However, power lines and other metal objects can pick up and reradiate that signal so that the signal received by the loop is a composite no longer vertically polarized. A clean null is not possible in that case. Also, with more distant stations, refraction from the ionosphere will modify the polarization. In real-world DX'ing, complete nulls may not be needed.

Numerous excellent articles on loop antennas for and by hobbyists have been written. Refer to DX News for the past year and to the NRC Product Catalog.



Mike and Jack

### The NRC is growing - and you can help.

More members in the NRC means a larger **DX News** ... and more features and services for all members. You can help your club grow: just send the names and addresses of potential club members to the NRC - P. O. Box 5711 - Topeka, KS 66605 and we'll send them a current copy of **DX News**. Spread the word - the National Radio Club is on the grow!



## 20 Musings of the Members

Thoughts from NRC members ... the opinions expressed in this column are those of the individual writer and do not necessarily reflect those of the editors, publishers, or the National Radio Club, Inc.

**Dave Schmidt**  
P. O. Box 11502  
Wilmington, DE 19850-1502  
Times are local per Muse.

**JOHN SAMPSON - 5210 GIRARD AVE.-S. MINNEAPOLIS, MN 55419**

Greetings. After the usual long interval, it's time for me to MUSE again. DX-ing in Minneapolis has been scant since spring. The only exciting verification was from CFHS, the tourism station on 530 khz in Ft. Frances, ON (after several f/ups and, finally, a letter to the ON Tourism office in Toronto). Of more interest & fun was our 3 week visit to Australia this fall. We started the trip by spending 3½ days in Sydney. We then flew to Brisbane where we spent 1 night and picked up an auto for our week long drive to the Cairns area (about 1800km N of Brisbane) w/subsequent overnight stops at Gympie, Rockhampton, Mackay & Daydream Island (in the Whitsundays). We spent 4 days at Palm Cove (about 20km N of Cairns), flew to Melbourne where we spent 3 more days and returned to Sydney for another day & a half before returning home. I brought my TRF & Sony ICF4900 on the trip and was able to do some cursory listening. I noticed that background, man-made electrical noise was not nearly the problem in Australia as in the US. Although much of my listening was done while sunning on the beaches (which we do as much as possible), I also listened quite a bit in hotels. In the US, background noise is generally quite high in hotels but this was not the case in Australia, at least at the hotels at which we stayed. In general, Australian stations had very clean signals with little of the extreme overmodulation and sideband splash so prevalent here. The ground conductivity seemed similar to that found on the E Coast of the US (quite poor o/land, excellent where there was a salt water path). The station density was delightful and reminded me of conditions here in the early 50's. Even in Sydney which has some 4 million people, there were only 12 strong locals, which, given their clean signals, left lots of room for other loggings. The paucity of stations in N Queensland left many blank spots on the dial during the day (for example, at Palm Cove there were only 10 stations audible, none above the weak 4CA translator on 954khz) and lots of room for more distant stations at night. Australia, unfortunately, does seem to have the same disease that is prevalent elsewhere, all nightitis. However, I suppose that's the price of solid state electronics. All in all, the trip was remarkable. The scenery was spectacular, the people we met were great and the flora & fauna were fascinating. I was hampered by not having and up-to-date list of Australian stations, although I had a 90 WRTVH, I found it cumbersome to use as a quick reference and suspect that, due to its age, it lacked a bit of accuracy. Is anyone aware of a good, up-to-date listing of Australian (and other S Pacific) stations? Otherwise, 73's (Nice to have your name back in the fold, John. John had one of the first NRC get-togethers in Freehold, NJ back in 64 that I ever attended. Wonder how many present members that made it to the one would report in NOW?-DWS)

**\*\*IT'S AN ILL WIND THAT BLOWS TWICE\*\***

**ERNEST R. COOPER - 5 ANTHONY STREET - PROVINCETOWN, MA 02657**

Hey Chicago - we've taken over the title of 'Windy City' (only we ain't a city!) We escaped from any degree of damage here at 5 Anthony from Hurricane Bob in August, and we also survived his kid brother who blew through here on 10/30 w/ as they say in Latin America, 'Mucho Gusto' (I've often felt that way-DWS). If you'll note on your map, Cape Cod ends with a little curly-cue. Provincetown is at that point, and in the sheltered portion, but had those winds from "Little Bob" been out of the SE rather than the NE, we'd likely have gotten wet, and then some. The ocean side of the Cape got hit badly by the 2nd storm which produced wind gusts of up to 78 MPH and there was much erosion and some loss of homes built too close to the water. For those of you who thought and prayed for us, our heartfelt thanks! Back to DX: Veries are in from WNBH-740 (ex-WLVG), WLPZ-1440, WVER-1440 (ex-WTQ), to total 4387. CX have been auroral for several weeks and that produces interesting DXing, like my station on 1330 w/an AN talk show w/a female host. I heard the calls WJNO a couple of times and this puzzled me for they are on 1230 and not 1330. But on 10/29 the signal was much better and I found out 'tis WJNX, relaying WJNO, WJNX is in Ft. Pierce, ex-WDKC w/virtually no sign of WWRV and none of CKLD in the Aurora. They gave a dual WJNO/WJNX ID on the hour and have CBS news on the hour. MM 10/7 WKBR-1250 back on the air w/familiar old hymns and relaying WNBH-1340. Sun 10/20 a report taken on WNEA-740 'Earth Radio' a local 250 watt daytime replacing WLVG. Mon 10/21 a report to WMSX-1410, a semi-local which I haven't verified yet, during the daytime. Tue 10/22 daytime report to WADN-1120, a reluctant verifier for me, this is the 3rd try! Sat. 10/26 I noted WJFK-1300, ex-WLIF/WFBR but not enough for a report. The 10/29 extremely auroral today, 1460 was all Radio Colombia (not Columbia), pronounced Col-loom'-bee-ya. I have a 6 year old WRTW which lists R. Columbia as a 1kw relay, this WAS to be stronger than 1000 watts! I may try for a verie here, Costa Rica is one country which is friendly w/the US & visa-versa. Wed. 10/30 report to WJNX-1330. I noted the same feed, likely

21

off the satellite, I suppose, on WNBH-1340, WDRC-1360 & WXKS-1430. I can hear the birds singing "cheap, cheap, cheap!" Forward - March!

**DOUGLAS E. SMITH (N9WI/4) - 14 BROOKSIDE COURT - NASHVILLE, TN 37209-4503**

Well, since I haven't been DXing a whole lot lately, I guess I ought to MUSE! Some pretty impressive conditions on the 10 meter ham band have eaten up most of my radio time. It doesn't help that my duplex mates have touch lamps, these things emit more RF than WLW! I can null it but that wastes my null, making DXing rather difficult. I do get me revenge, my ham signals make the lamp blink on & off. I bet that if I get on the air at 3AM, they'll trash that touch lamp fast! Along with the touch lamps, there are plenty of other 'newfangled' devices prepared to raise havoc with AM reception, especially DX reception. Luckily, wireless computer LANS are unlikely to be among them, most operate in the 902-928 mhz UHF band, in which no license are required. Motorola's Altair system uses a different chunk of the spectrum, still UHF. AM frequencies are just too low for practical wireless networks, most computer networks pass data at at least 100khz. Laws of physics set the maximum data rate at one half the RF carrier, this limits AM frequencies to a max. data rate of 800khz, practical limitations bring this down to 50khz or less, way too slow for any real use. I returned from a visit to New England and the NYC area. An interesting side trip was to Marconi's Wellfleet, MA Transatlantic station site. Unfortunately, the sea has reclaimed almost all traces of this station, but 2 of the 4 tower bases still exist, and there's an excellent mockup of the station. Unfortunately, motel rooms are AWFUL places to DX from. For some reason, motel TV sets seem to radiate at least 20 db more hash than regular TVs. And the prevalence of steel frames in modern buildings doesn't help. Of course, it could be worse, one could try to DX TV from a motel where cable leaks fill the band! Tried for some TA's while in the area, without success. I didn't get a chance to go all the way to the beach and suspect that would have made the difference. I'm planning on heading for FL in Nov., any international DXers down there with tips for TA loggings? (Doug, thanks for your report, we edited down some previous repeated info so to fit in. DWS)

**MORRIS SORESENSEN - 29 JANET BLVD. - SCARBOROUGH, ON M1R-1H7**

I thought I'd send a short MUSE as I haven't checked in for quite some time. Yesterday, I was up in Richmond Hill so I decided to drop in to CHOG "AM 640 The Hog" studios. The receptionist gave me a few decals. They try to keep a low profile in Richmond Hill as they want to be known as a Toronto station but judging from the stickers around town, they seem to have a following with the local high school crowd. On the other hand, they are dead last among commercial stations in the Toronto ratings despite their excellent signal strength over the entire metro area. Last weekend, I attended an ON DX Association DX-pedition to Gravenhurst, about 100 miles N of Toronto. Conditions were somewhat less than fantastic but apparently a few of the guys heard Belize-830 s/on around 5A when yours truly was sawing logs! In my recent report to TF's excellent FORMATS column, the Winnipeg football team is listed as the Blue Bombs. They are actually the Blue Bombers. Tony probably couldn't read my writing. I guess the CFL isn't too well known in the US. On a personal note, I have left Lochmorden Mills Museum where I worked as an education coordinator since 12/89 & I am now teaching with the Toronto Board of Education. 73's

**ALAN MERRIMAN - PO BOX 66 - ANNANDALE, VA 22003**

It's been a LONG time since I've appeared in MUSINGS so I guess a reintro is in order. I'm 51 & have been a member of the NRC since 1958, have about 1600 veries from 49 states, 10 provinces & 93 countries. For the most part, I've been very inactive the past dozen years but gradually have been getting back into the swing of things. RX is the notorious Drake R8, I'm not going to do a review but overall, am very pleased with mine. Its not perfect but I don't have the extreme problems reported by others. Other equipment includes a NRD535, various audio filters, 2 antenna supermarket slopers modified with noise reducing transformers, MWDX4A mini wire/wire phasing unit, MWT2 regenerative tuner/amp and a 2' high dynamic range balun loop w/amp. One of my reasons for this MUSEING is to thank 2 club members who over the past few years have spent a lot of time developing and doing articles about equipment for BCB DXers. They are MARK CONNELLY & DALLAS LANKFORD. The gear being designed by these 2 is absolutely superb. Mark's MWDX4A and MWT2 both work great. If you have not experienced the operation of a phasing unit, you will not believe your ears. Strong signals can be made to completely disappear! Dallas Lankford's 2' air core loop w/one transistor amp is as good as an air core loop as I have ever had and over the years, I have tried a bunch! If you aren't building and using this equipment, you're definitely missing something. Thanks fellows - I look forward to more articles in the future. 73

**TOM MULVANEY (WB8VMI) - 3525 CORNWALL DRIVE - LEXINGTON, KY 40503**

After being a 'silent' NRC member for a year, I felt it was time to introduce myself. I am 43 years old and have been DXing the MW's on/off for over 30 years. Back in the early 60's while living in Riverside, CA, I was a charter



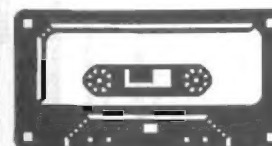
member of the IRCA (HI to Don Erickson). Back then, there was a definite 'bad blood' between the 2 clubs. That seems to have mellowed with age, however. In '65, while still in high school, I moved to Warren, OH (in the land of Jerry Starr & then, WHOT-1330). Shortly thereafter, my membership in the IRCA lapsed as I went off to college for 4 years. I obtained a BA degree in Broadcasting/Journalism from the University of Dayton and worked in that field for a few years. More on that end of my life in the special Dec. MUSINGS Dave is planning for those in (or out of) the radio business. In '75, the ham bug bit and I've been at it ever since. I operate an amateur FM repeater here in Lexington on 223.74 mhz (output) so if any of you fellow hams are in the area, please feel free to call me. My MW DX has not been all that serious in recent years, but I do keep up with what is happening in the broadcast industry. I personally think it is a crime that a very high percentage of stations have gone the automated or satellite route for their programming. In this area, many stations rely on such programming for all, or nearly all, of their programming. In fact, it is not unusual to hear several nearby stations programming the exact same programming simultaneously. Personally, I would rather hear some 'less-than-great' local announcer than generic, satellite dumped programming fed through a local transmitter. The reason so many stations are broke and/or programming such trash is due to the glut of stations the FCC has allowed to come on the air. Here in the Lexington market, there is only 1 AM station (WVLC-590) with what could be called a news department. To DX matters: CX on the MW band have been weird lately. For several days, absorption has literally dried up almost all signals N of here at night. The dial is full of SS stations on nearly every frequency. It seems strange not hearing the usual stations like WLS, WWNE, WJR, WGN, etc. During the evening 11/4 (between 8-11:30PM), I logged several new (to me) regional stations from S states including WRBQ-1380, WXOK-1460, WJBY-930, KLEB-1600, WZTX-1440 & several others. So much for now, 73's and great DXing to all of you! (And a thank you to you, Tom, for your fine report!-DWS)

DAVE SCHMIDT - PO BOX 11502 - WILMINGTON, DE 19850

Now that space permits, a few weeks back, I made a trip to Scranton, PA to pick up some radio station equipment, with my friend and radio-is-of-interest associate Dave Shayer. N we made a stop at WHOL-1600, mainly to meet the PD there, Mike Smittreski. He gave us the grand tour of the station, 2 tower DA w/500 watts and a REL format. Next stop was at WYNS-1160, in the hopes of catching the CE but he wasn't in, but a nice visit was had. They have a very impressive studio/transmitter sight on the top of a hill overlooking Lehigh, now a 3 tower dog-legged system (4400 day/1200 night) featuring 'Classic Gold' (oldies) in AM Stereo. They operate from 6AM til 12 Midnight except 24 hours Friday night/Saturday AM. No satellite programming here, it's all local with live DJ's holding down the operation. Finally, we made it to Scranton and got the grand tour (studio & transmitters) of WARM/WNJS, a very impressive operation. If anyone hears WARM, drop a report to Bob Lenio, he'll be glad to hear from you. Bob was formerly the CE at WAMS-1380 back in the late 70's, he offered me a lot of help with WAMS while I was CE there. The trip back was a rainy day as we spent most of the day in Wilkes-Barre and at the offices of the Pocono NE Railway outside of Pittston. And it's true about WNAK-730 using fund raisers to stay on the air, they had a offer for a spaghetti super to be held at a local fire hall, requesting volunteer help all for \$15 to help keep "WNAK on the air". I guess it was working, they were still on and running full KAHN AM STEREO (the last one in the US?). Conditions have really been auroral this past week, with the AM band wide open at night, even the common FL stations usually heard have not been present. I did note WKAT-1360 one evening, featuring a big band music show. This station was very common in the DX world about 20 years ago, now it's rare to see it reported! Again, it would be deeply appreciated if all reporting in could DOUBLE SPACE your reports, or if hand-written, skip a line on the paper. It helps me very much when typing this up after being up for 15 hours-hi! It was nice to have reports from ALAN MERRIMAN, JOHN SAMPSON, ERC this time, and we'd like to hear from YOU on your DX doings! CUN7 & 73's

# Krazy Ken Special

## 90 Minute Audio Cassettes



**C90 Music Grade  
NOT Voice Grade  
Audio Cassettes**

**\$22.00 / 25**

**\$42.00 / 50**

**Save \$2.00**

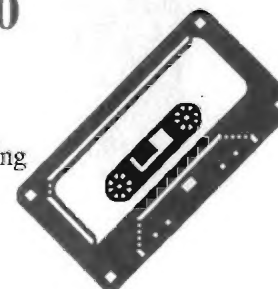
Price includes shipping  
to one address.

The NRC DX Audio Service has just purchased a quantity of C-90 music grade audio cassettes, a \$4.00 Retail Value. Ken has gone crazy again and says we can't have cases of these cassettes sitting on the shelves.

**For a limited time only** these cassettes are available to NRC Subscribers only for 88 cents each in lots of 25 and 84 cents each in lots of 50. You save **\$3.12 or more** over the regular retail price of these music grade cassettes if purchased elsewhere.

Take advantage of Ken's crazy state and order your C-90 music grade cassettes today before the supply runs out.

**ORDER TODAY!**



## In time for the Holidays!



Save 15% when you order \$40 or more from the NRC Product Catalog, excluding subscriptions. Just present this coupon with your order form.

Expires December 15, 1991 and cannot be used in conjunction with any other coupon. One coupon per order.



NRC Subscribers Only

**Yes!** Rush me 25 (\$22.00) / 50 (\$42.00) C-90 Music Grade cassettes. NY/WI must add sales tax.

Circle One

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

For Credit Card Orders Include: Telephone \_\_\_\_\_ Credit Card Number \_\_\_\_\_

Expiration Date \_\_\_\_\_

WI residents must add sales tax to credit card orders.

Send Check/Money Order to NRC Publications, Box 164, Mannsville, NY 13661-0164

NY residents must add sales tax.